

Appl. No. 10/773,383
Office Action mailed 04/06/2007

In the Claims

Claims 1-31 [canceled].

32. [Currently Amended] A temperature sensing apparatus fabrication method of sensing temperature of an electronic device workpiece comprising:

providing an electronic device workpiece;

forming a cavity in an electronic device workpiece;

providing a temperature sensing device within the cavity and in a configuration to sense temperature of the electronic device workpiece;

supporting [[a]] the temperature sensing device using the electronic device workpiece;

providing an electrical interconnect upon a surface of the electronic device workpiece; and

electrically coupling the electrical interconnect with the temperature sensing device;
and

~~sensing temperature of the electronic device workpiece using the temperature sensing device.~~

33. [Currently Amended] The method according to claim 32 ~~further comprising~~
wherein the electrically coupling comprises wire bonding the electrical interconnect and the
temperature sensing device.

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34. [Cancelled].

35. [Currently Amended] The method according to claim ~~[[34]]~~ 32 wherein the forming the cavity comprises anisotropically etching the electronic device workpiece.

36. [Currently Amended] The method according to claim ~~[[34]]~~ 32 wherein the forming the cavity comprises isotropically etching the electronic device workpiece.

37. [Original] The method according to claim 32 further comprising forming the temperature sensing device.

38. [Original] The method according to claim 37 wherein the forming the temperature sensing device comprises forming a resistance temperature device.

39. [Original] The method according to claim 32 further comprising electrically coupling the electrical interconnect with external circuitry.

40. [Original] The method according to claim 32 further comprising electrically coupling the temperature sensing device with an edge of the electronic device workpiece using the electrical interconnect.

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41. [Original] The method according to claim 32 wherein the providing the electrical interconnect comprises forming a conductive trace.

42. [Original] The method according to claim 32 further comprising contacting the electrical interconnect with the temperature sensing device.

43. [Previously Presented] The method according to claim 32 wherein the sensing comprises sensing temperature of the electronic device workpiece comprising a semiconductive wafer.

Claims 44-52 [canceled].

53. [Currently Amended] A temperature sensing apparatus fabrication method of ~~sensing temperature of an electronic device workpiece~~ comprising:

providing an electronic device workpiece;

forming a plurality of temperature sensing device devices over the electronic device workpiece, ~~the forming including providing the temperature sensing device devices being~~ configured to sense temperature in three dimensions of in a temperature sensing relation ~~with the electronic device workpiece; and~~

~~sensing the temperature of the electronic device workpiece using the temperature sensing device.~~

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54. [Currently Amended] The method according to claim 53 further comprising:
providing an electrical interconnect upon the electronic device workpiece; and
electrically coupling the electrical interconnect with at least one of the temperature
sensing ~~device~~ devices.

55. [Original] The method according to claim 54 wherein the providing the
electrical interconnect comprises forming a conductive trace.

56. [Currently Amended] The method according to claim 54 wherein the
electrically coupling comprises wire bonding the electrical interconnect and the at least one
of the temperature sensing ~~device~~ devices.

57. [Currently Amended] The method according to claim 54 wherein the
electrically coupling includes contacting the electrical interconnect and the at least one of
the temperature sensing ~~device~~ devices.

58. [Currently Amended] The method according to claim 53 further comprising:
forming a cavity in the electronic device workpiece; and
providing at least one of the temperature sensing ~~device~~ devices within the cavity.

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59. [Original] The method according to claim 58 wherein the forming the cavity comprises anisotropically etching the electronic device workpiece.

60. [Currently Amended] The method according to claim 53 wherein the forming comprises forming the temperature sensing devices individually comprising a resistance temperature device.

61. [Cancelled].

62. [Currently Amended] A temperature sensing apparatus fabrication method of sensing temperature of an electronic device workpiece comprising:

providing an electronic device workpiece;

supporting a temperature sensing device using the an electronic device workpiece;

providing the temperature sensing device in a temperature sensing relation relationship with the electronic device workpiece;

providing an electrical interconnect upon a surface of the electronic device workpiece; and

electrically coupling the electrical interconnect with the temperature sensing device comprising wire bonding the electrical interconnect and the temperature sensing device.

63. [Cancelled].

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64. [Cancelled].

65. [Original] The method according to claim 62 further comprising:
forming a cavity in the electronic device workpiece; and
providing the temperature sensing device within the cavity.

66. [Original] The method according to claim 65 wherein the forming the cavity
comprises anisotropically etching the electronic device workpiece.

67. [Previously Presented] The method according to claim 62 further comprising
forming the temperature sensing device upon the electronic device workpiece.

68. [Original] The method according to claim 62 further comprising electrically
coupling the electrical interconnect with circuitry external to the electronic device
workpiece.

69. [Original] The method according to claim 62 further comprising electrically
coupling the temperature sensing device with an edge of the electronic device workpiece
using the electrical interconnect.

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70. [Original] The method according to claim 62 wherein the providing the electrical interconnect comprises forming a conductive trace.

71. [Currently Amended] A temperature sensing method comprising:
supporting a plurality of temperature sensing device devices using a wafer, and wherein the temperature sensing devices are individually in a temperature sensing relationship with respect to the wafer;
~~providing the temperature sensing device in a temperature sensing relationship with respect to the wafer;~~
exposing the wafer and the temperature sensing device devices to process conditions effective to form at least one electronic device; and
sensing [[a]] temperature of the wafer in three dimensions of the wafer using the temperature sensing device devices during the exposing.

72. [Previously Presented] The method of claim 71 further comprising adjusting the process conditions responsive to the sensing.

73. [Previously Presented] The method of claim 71 further comprising sensing the temperature of the wafer at a plurality of positions covering substantially an entirety of a surface of the wafer.

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74. [Cancelled].

75. [Currently Amended] The method of claim 71 wherein the wafer comprises a production wafer, and further comprising forming the at least one electronic device using the wafer ~~responsive to~~ during the exposing.

76. [Currently Amended] The method according to claim 32 wherein the ~~providing~~ the electronic device workpiece comprises ~~providing a wafer comprising silicon~~ a silicon wafer.

77. [Currently Amended] The method according to claim 32 ~~wherein the sensing~~ comprises sensing further comprising configuring the temperature sensing device to sense the temperature of the electronic device workpiece during fabrication of an electronic device using the electronic device workpiece.

78. [Previously Presented] The method according to claim 53 wherein the providing the electronic device workpiece comprises providing a wafer comprising silicon.

79. [Currently Amended] The method according to claim 53 wherein the ~~sensing~~ comprises sensing wherein the temperature sensing devices are individually configured to

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sense the temperature of the electronic device workpiece during fabrication of an electronic device using the electronic device workpiece.

80. [Currently Amended] The method according to claim 62 wherein ~~the~~ providing the electronic device workpiece comprises ~~providing a wafer comprising silicon a~~ silicon wafer

81. [Currently Amended] The method according to claim 62 ~~further comprising~~ sensing wherein the temperature sensing device is configured to sense temperature of the electronic device workpiece during fabrication of an electronic device using the electronic device workpiece.

82. [Currently Amended] The method of claim 71 wherein the supporting comprises supporting the temperature sensing device devices using the wafer comprising silicon.

83. [Previously Presented] The method of claim 71 wherein the sensing the temperature comprises sensing the temperature of the wafer during fabrication of an electronic device using the wafer.

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84. [New] A temperature sensing apparatus fabrication method comprising:
providing an electronic device workpiece;
forming a temperature sensing device over the electronic device workpiece, the forming including providing the temperature sensing device in a temperature sensing relation with the electronic device workpiece;
providing an electrical interconnect upon the electronic device workpiece;
electrically coupling the electrical interconnect with the temperature sensing device;
and
wherein the electrically coupling comprises wire bonding the electrical interconnect and the temperature sensing device.

85. [New] A temperature sensing apparatus fabrication method comprising:
providing an electronic device workpiece;
forming a cavity in the electronic device workpiece; and
forming a temperature sensing device within the cavity, the temperature sensing device being configured to sense temperature of the electronic device workpiece.

86. [New] The method according to claim 85 wherein the forming the cavity comprises anisotropically etching the electronic device workpiece.

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87. [New] A temperature sensing apparatus fabrication method comprising:
forming a cavity in an electronic device workpiece;
supporting a temperature sensing device using the electronic device workpiece, the
supporting comprising providing the temperature sensing device within the cavity in a
temperature sensing relationship with the electronic device workpiece;
providing an electrical interconnect upon a surface of the electronic device
workpiece; and
electrically coupling the electrical interconnect with the temperature sensing device.

88. [New] The method according to claim 87 wherein the forming the cavity
comprises anisotropically etching the electronic device workpiece.

89. [New] A temperature sensing method comprising:
supporting a temperature sensing device using a wafer;
exposing the wafer and the temperature sensing device to process conditions
effective to form at least one electronic device;
sensing a temperature of the wafer using the temperature sensing device during the
exposing; and
during the exposing, forming the at least one electronic device using the wafer.